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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,426	11/26/2003	Michael Conrad	07781.0115-00000	6619

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EXAMINER

KIM, DANIEL Y

ART UNIT	PAPER NUMBER
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2185

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/721,426	Applicant(s) CONRAD ET AL.	
	Examiner Daniel Kim	Art Unit 2185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to applicant's communication filed May 25, 2006 in response to the PTO Office Action mailed March 10, 2006. The applicant's remarks and amendments to the claims and/or the specification were considered with the results that follow.

In response to the last Office Action, no claims have been amended or cancelled, and claim 19 has been added. Claims 1-19 remain pending in this application.

Response to Arguments

2. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8, 10-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Margolus et al (US PGPub No. 20040143745) and Sadjadi (US Patent No.6,850,938).

Margolus discloses a method of avoiding data loss in a data object replication process (the cache storage device of the backup server stores a data structure that provides a replicated copy of the data structure, par. 0040) comprising:

creating an electronic data element comprising a first field having an identifier (an access identifier that uniquely identifies the data item, where the named object may be a data structure created by a client program or server program, par. 0011) and a second field having a state of the identifier (associating the data item with each of a plurality of access-authorization credentials, each of which is uniquely associated with a particular user or client program, par. 0011; altering one or more properties or parameters associated with an access-authorization credential to change the access rights of a client or user to the data item referenced by that credential, par. 0011);

setting the second field of the data element to a state indicating that the electronic data element may be accessed and assigned (par. 0011);

assigning the identifier to one or more data objects (par. 0011);

Margolus fails to disclose the remaining claim limitations.

Sadjadi, however, helps disclose upon a commit of the storing of the one or more data objects, removing the shared lock and setting the state of the identifier to indicate that the one or more data objects may be replicated (at the time of an update commit, the lock manager converts a lock to an exclusive lock until the commit is complete, and then the lock manager releases the lock, col. 2, lines 47-50; a method of providing concurrent access to a database object including generating a lock data structure for a

particular database object; the lock data structure or lock includes data indicative of values for a database object identification and a lock type, col. 3, lines 63-67).

Margolus and Sadjadi are analogous art in that they are of the same field of endeavor, that is, a system and/or method of memory management. It would have been obvious to a person of ordinary skill in the art at the time of the invention to include identifiers, states of identifiers, and removing shared locks and allowing for replication because this would allow for sharing access to computer resources among distributed users (col. 1, lines 7-8), as taught by Sadjadi.

For claim 2, Sadjadi further helps disclose different states for these elements (the database server interacts with a lock manager process that maintains a locking data structure, which carries information about which database objects have been requested by one or more processes, col. 1, lines 44-47; the lock identifies the data base object, and the type of access granted; the process then accesses the database object, as permitted by the lock, and when finished, the process releases the lock to the lock manager, which may then grant the lock to another requesting process, col. 1, lines 52-57).

Claim 3 is rejected using the same rationales as for the rejections of claims 1 and 2 above.

Claim 4 is rejected using the same rationales as for the rejections of claims 1 and 2 above.

Claim 5 is rejected using the same rationales as for the rejections of claims 1 and 2 above.

Claim 6 is rejected using the same rationales as for the rejections of claims 1 and 2 above.

For claim 7, the combined teachings of Margolus and Sadjadi disclose the invention as per rejection of claim 6 above.

Margolus further helps disclose setting the second electronic data element as the default data element (a client may replace an existing version of a data item stored on the storage device with a new version of that data item, by replacing the existing named object with a new object; the named objects may include version information associating different data items with different versions of the named object; copies of named objects may be preserved by creating a new version of each named object each time that a new data item is associated with it, par. 0011).

Claim 8 is rejected using the same rationales as for the rejections of claims 1-2 and 7 above.

For claim 10, the combined teachings of Margolus and Sadjadi disclose the invention as per rejections of claims 1-2 above.

Sadjadi further helps disclose a memory and a microprocessor coupled to the memory (a computer system includes a bus or other communication mechanism for communicating information, and a processor coupled with the bus for processing information; the computer system also includes a main memory, col. 14, lines 43-50).

Claim 11 is rejected using the same rationale as for the rejection of claim 2 above.

Claim 12 is rejected using the same rationale as for the rejection of claim 3 above.

Claim 13 is rejected using the same rationale as for the rejection of claim 4 above.

Claim 14 is rejected using the same rationale as for the rejection of claim 5 above.

Claim 15 is rejected using the same rationale as for the rejection of claim 6 above.

Claim 16 is rejected using the same rationale as for the rejection of claim 7 above.

Claim 17 is rejected using the same rationale as for the rejection of claim 8 above.

Claim 19 is rejected using the same rationale as for the rejections of claims 1-2 and 7 above.

5. Claims 9-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Margolus et al (US PGPub No. 20040143745), Sadjadi (US Patent No.6,850,938) and Moller et al (US Patent No. 6,857,068).

For claim 9, the combined teachings of Margolus and Sadjadi disclose the invention as per rejection of claims 1-2 above.

These teachings fail to disclose the remaining limitations.

Moller, however, helps disclose irreversibly blocking the changing of the state of an electronic data element (a locked state, in which writing into a predetermined section is disabled, and the transition from a state to another state is irreversible, col. 3, lines 50-56).

Margolus, Sadjadi and Moller are analogous art in that they are of the same field of endeavor, that is, a system and/or method of memory control. It would have been obvious to a person of ordinary skill in the art at the time of the invention to include an irreversible block on data because this would allow for a protected section of data (col. 3, lines 49), and a high amount of data security (col. 6, lines 2-3), as taught by Moller.

Claim 18 is rejected using the same rationale as for the rejections of claims 9 and 13 above.

Citation of Pertinent Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Midgley et al (US PGPub No. 20050193031) discloses systems and methods for continuous backup of data stored on a computer network.

Rao et al (US Patent No. 5,689,706) discloses distributed systems with replicated files.

Davis et al (US Patent No. 5,918,229) discloses a network of computer nodes and a globally addressable memory system.


Contact Information

7. Any inquiries concerning this action or earlier actions from the examiner should be directed to Daniel Kim, reachable at 571-272-2742, on Mon-Fri from 10:00am – 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan, is also reachable at 571-272-4210.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information from published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. All questions regarding access to the Private PAIR system should be directed to the Electronic Business Center (EBC), reachable at 866-217-9197.

DK

8-2-06


8/4/06

MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER